

**Preliminary Determination on the Application of  
LEGACY CABINETS, INC.**

**EASTABOGA, AL**

**309-0030-X006**

**LINE NO. 6**

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## ***Engineering Analysis***

### **LEGACY CABINETS, INC. Facility No. 309-0030**

#### **HISTORY**

Legacy Cabinets, Inc. (Legacy) operates a wooden cabinet manufacturing facility in Eastaboga, Alabama. Legacy is a major source (for VOCs) for Title V purposes and PSD purposes with their existing operations. Legacy has existing Unit No. 1, Unit No. 2, and Unit No. 3, which have PSD synthetic minor limits of 249 TPY (combined) for VOCs. Legacy has existing Unit No. 4 which has a PSD synthetic minor limit of 237 TPY for VOCs. Legacy has existing Unit No. 5 which has a PSD synthetic minor limit of 39 TPY for VOCs. Legacy has existing Unit No. 6 which has a PSD synthetic minor limit of 39 TPY for VOCs. Based on the preceding history of permitting, Legacy exceeds the 250 TPY threshold for being a major source. Legacy has recently exceeded the 39 TPY limit on Unit No. 6, and the enforcement for this matter is taking place under a separate action.

#### **PROPOSED CHANGES**

Air Permit Applications were received from Legacy on July 5, 2017, July 18, 2017, and August 7, 2017. In these applications, Legacy is proposing to amend the Line No. 6 Permit to allow greater than the permitted 39 TPY emissions limitation. In order to do this, Legacy is undergoing a PSD BACT review of this source since both potential and actual emissions of VOCs (ozone) would be greater than 40 tons per year for this unit. The other units at the plant will remain unchanged with this permitting action. No physical changes are being proposed to Line No. 6 with this permitting action, only an increase in the potential allowed emissions. A permit fee of \$8925.00 was received on xxxxxxxx.

#### **VOC BACT**

Best Available Control Technology (BACT) must be installed on all significant sources of VOCs in this unit in accordance with ADEM Administrative Code 335-3-14-.04(a).

An ambient air impact analysis must be performed, in accordance with ADEM Admin. Code 335-3-14-.04 (10). The impact of the facility on visibility, soils, and vegetation must also be addressed, in accordance with ADEM Admin. Code 335-3-14-.04 (14). BACT, the ambient air impact analysis, and impact of the facility on visibility, soils, and vegetation are addressed in the Appendix 1 of this analysis.

The plant is located within an attainment area for all criteria pollutants and is greater than 100 Km from the closest Class 1 Area (Sipsey Wilderness). This facility currently has a Title V permit and it will be amended to reflect these permitting changes at a future date.

### **EXISTING OPERATIONS**

In Legacy's wooden kitchen cabinets manufacturing operation, the major production operations are woodworking, surface coating and assembly.

### **WOODWORKING**

Wood entering the manufacturing plant is chopped into lengths, and then conveyed to a myriad of operations that may include gluing, shaping, sanding, boring, drilling, etc. Emissions from the woodworking operations are conveyed to the baghouses. The baghouse collected matter is transferred to trailers and eventually transferred offsite.

### **SURFACE COATING**

Following the woodworking operations, the wood is conveyed to one of six surface coating lines.

#### ***Line #1 - Existing***

Surface Coating Line No. 1 consists of 3 stain booths, 2 sealer booths, 2 topcoat booths, and a drying oven. Unit No. 1, Unit No. 2, and Unit No. 3, have a common PSD synthetic minor limit of 249 TPY for VOCs.

#### ***Line #2 - Existing***

Surface Coating Line No. 2 consists of 2 stain booths, 2 sealer/topcoat booths, and two drying ovens. Unit No. 1, Unit No. 2, and Unit No. 3, have a common PSD synthetic minor limit of 249 TPY for VOCs.

#### ***Line #3 - Existing***

Surface Coating Line No. 3 consists of a stain booth and a sealer / topcoat booth. Unit No. 1, Unit No. 2, and Unit No. 3, have a common PSD synthetic minor limit of 249 TPY for VOCs.

***Line #4 - Existing***

Surface Coating Line No. 4 consists of 3 coating booths, and two drying ovens. They have added an independent Sealer booth here on a separate line. Unit No. 4 has a PSD synthetic minor limit of 237 TPY for VOCs.

***Line #5 - Existing***

Surface Coating Line No. 5 consists of 4 stain booths and a sealer booth Unit No. 5 has a PSD synthetic minor limit of 39 TPY for VOCs.

***Line #6 - Existing***

Surface Coating Line No. 6 consists of 4 stain booths and 2 sealer booths, 4 topcoat booths, and a drying oven. Unit No. 6 has a PSD synthetic minor limit of 39 TPY for VOCs.

**ASSEMBLY**

The coated pieces and the plywood are then assembled into the final product which is then packaged and shipped off-site.

**BACT ANALYSIS**

BACT is an emissions limitation based on maximum pollutant reduction achievable when, on a case-by-case basis, energy, environmental, and economic impacts and other costs are considered.

The incremental cost effectiveness of many add on control devices was examined by Legacy. The incremental cost effectiveness calculation compares the costs and emissions performance level of a control option to those of the next most stringent option.

The add-on control options that were considered feasible from a technical standpoint are: 1) Regenerative Thermal Oxidizer and, 2) Zeolite Rotor Concentrator with Regenerative Thermal Oxidizer. Many combinations of the booths were analyzed with the above control devices including A) Stain Hand Wipe area being enclosed and the

control device treating emissions from all coating booths, the hand wipe area, and curing oven. B) The control device treating emissions from all coating booths and curing oven, but not the hand wipe area. C) The control device treating emissions from sources with the highest VOC emission rates (Stain Booths 1 and 2, Topcoat Booths 1, 2, 3, and 4, and the curing oven). D) The control device treating emissions from the curing oven.

Calculations show maximum emissions for all booths utilizing present usages and VOC contents of coatings operating at 5000 hours per year have a potential of 191.7 tons per year of VOC. The option with the best incremental cost effectiveness is Coating Reformulation (CR) controlling all VOC coatings with an incremental cost of \$1,009/ton VOC reduced. CR results in the reduction of 82.0 tons of VOC utilizing present usages and CR VOC contents of coatings with an annual cost of \$82,767.

The option with the next best incremental cost effectiveness of the add on control devices is option C-2 (Zeolite Rotor Concentrator with Regenerative Thermal Oxidizer controlling the highest VOC emission sources) with an incremental cost of \$9,179/ton VOC reduced. This cost is not currently considered economically feasible for VOC control.

All remaining combinations of these four options and the two control devices listed had incremental costs in excess of \$10,000 per ton of VOC removed. Therefore, these higher cost add-on controls are not feasible in Legacy's case.

### **OTHER BACT REVIEWS**

A review of the BACT-LAER Clearing House shows most recent BACT decisions required air assisted airless/HVLP applicators, and a limit on the VOC content on the individual coatings. Three of facilities (Masterbrand Cabinets 2015), (Masterbrand Cabinets 2003), and (Steelcase Wood Furniture 1999) did require RTO controls. In the Masterbrand Cabinets' 2015 case, this RTO control was also part of combining other lines along with the proposed addition and the elimination of existing plant limits as a part of the permitting action. In the Masterbrand Cabinets 2003 case, this RTO control was added to bring the proposed emissions below the PSD threshold and as a result, making a PSD BACT review unnecessary.

An analysis of other wooden cabinet manufacturer's in the BACT/LAER Clearing House that produce cabinets shows no coating limitations lower than Legacy's proposed limits.

**Table 1: BACT Comparison**

Facility	Emission Limit	
MasterBrand Cabinets 2015	4.7 #/gal (Max) Opaque 5.0 #/gal (Max) NonTopcoat Pigment 5.6 #/gal (Max) Repair 6.6 #/gal (Max) Semitransparent 6.1 #/gal (Max) Washcoat 5.6 #/gal (Max) 2.3 #/#solids (Max) Acid Alkyd Amino 1.9 #/#solids (Max) other Sealers 5.6 #/gal (Max) Clear Topcoat 2.0 #/#solids (Max) Acid Alkyd Amino 1.8 #/#solids (Max) other Topcoats HVLP/Air Assist Airless All 98% RTO Control* *under construction	Stain/Toner/Glaze      Sealers   Topcoats
Hooker Furniture 2006 500 TPY	7.5 #/gal (Max) 6.2 #/gal (Max) 6.5 #/gal (Max) 6.5 #/gal (Max) 4.0 #/gal (Max)	Stain/Colorcoats Glaze Sealers Topcoats Boothcoater?
Wellborn Cabinet 2006 717 TPY Toner/Glaze/Seater 2	7.2 #/gal (Max) 6.8 #/gal Avg 5.0 #/gal (Max) 4.5 #/gal Avg 7.2 #/gal (Max) 5.0 #/gal Avg 4.3 #/gal (Max) 4.15 #/gal Avg 6.5 #/gal (Max) 6.35 #/gal Avg HVLP/Air Assisted Airless	Stain Sealer Topcoat Toners Glazes

Green Mountain Prestain 2005 Roll Coat	2.9 #/gal (Max)	
Country Coach 2005 Roll Coat	6.5 #/gal (Max) 2.1 #/gal (Max)	Pretreatment Primer/Surface Sealer
Batesville Manf 2003	4.07 #/gal (Max) 4.07 #/gal (Max) 4.07 #/gal (Max)	Stain Sealer Laquer
MasterBrand Cabinets 2003 200 TPY	RTO Control	
Marsh Furniture 2002 800 TPY Hanging Lines 1, 2 Flat Line	7.2 #/gal (Max) Transparent 6.2 #/gal (Max) 5.5 #/gal (Max) 6.4 #/gal (Max) 5.6 #/gal (Max) 5.0 #/gal (Max) 5.0 #/gal (Max)	Stain Sealers Topcoats Basecoat/Primer Enamels Edge Coat Fillers
Masterbrand 2001 620 TPY	6.39 #/gal (Max) 5.73 #/gal (Max) 5.73 #/gal (Max) 7.17 #/gal (Max) 5.73 #/gal (Max)	Stain Sealers Topcoats Toners Preseal
SteelCase Wood Furniture 1999	2.8 #/gal (Max) Waterbased 5.9 #/gal (Max) Solventbased 6.95 #/gal (Max) 4.9 #/gal (Max) 5.9 #/gal (Max) 1.3 #/gal (Max) Waterbased 4.55 #/gal (Max) RTO	Stain Stain Washcoats Wipe Stain Sealers Topcoat UV Topcoat
Crystal Cabinet Works	6.45 #/gal (Max)	Stain/Glaze



1999	3.86 #/gal (Max) 4.69 #/gal (Max) 4.91 #/gal (Max) 4.84 #/gal (Max) 4.73 #/gal (Max) 5.6 #/gal (Max)	Toners Primers Sealers Enamel Topcoat Clear Varnish Clear Laquer
Wellborn Cabinet 1995 797 TPY	7.2 #/gal (Max) 6.8 #/gal Avg 7.2 #/gal (Max) 5.7 #/gal Avg 7.2 #/gal (Max) 5.0 #/gal Avg	Stain Sealer Topcoat

#### **BACT SELECTED FOR LINE NO. 6**

Legacy has reviewed their existing coatings on Line No. 6 with proposed Coating Reformulations (CR). Legacy proposes the following as BACT for Line No. 6:

1. The use of HVLP spray equipment for stains.
2. The use of air assisted airless spray equipment for sealers and topcoats.
3. A limit of 110.0 TPY of VOCs.
4. A limit of 5000 Hours of operation.
5. A limit of 0.3 pounds of VHAP/pound of Solids.
6. Coating content limited as follows:

**Table 2: BACT Coating Limits**

	Stains	Sealers	Topcoats	Catalysts
Maximum pounds VOC/gallon of coating	1.58	0.62	2.3	1.55

Legacy's entire facility is subject to the MACT Standard for wooden furniture manufacturers (JJ) which requires Legacy to meet the existing source requirements

which includes meeting 1.0 pound VHAPS/pound of solids as applied on most coatings and certain good work practices. The new source requirement for this regulation is 0.8 pound VHAPS/pound of solids as applied on most coatings. Legacy will accept a Line No. 6 limit of 0.3 pounds of VHAP/pound of Solids. In addition, Legacy will accept a facility wide limit of 0.7 pounds of VHAP/pound of Solids for the entire facility as part of this permitting procedure.

Coating and clean up will involve good housekeeping practices. Particulate filters will be required to be maintained on the booths.

There are no applicable NSPS regulations for the coating lines.

Legacy currently uses HVLP (High Volume Low Pressure) applicators for their stain coating. They use air assisted airless applicators for their sealers and topcoats. They also use Ultraviolet (UV) coaters for the sealer and topcoat on specific flat pieces.

RECOMMENDATIONS:

ADEM concurs with the proposed BACT determination along with the additional requirements listed above as BACT. ADEM proposes to issue revised Air Permit Line No. 6. Suggested permit provisos are attached at Attachment 1.

Pending the public comment period, I recommend that the Air Permit with the attached permit provisos (see Attached) be issued for this facility since all applicable regulations would be met.

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Kevin M. Fulmer

September 8, 2017

Date

## **Appendix 1**

### **BACT Determination**

A BACT determination for any pollutant is a case-by-case (plant specific) determination of the best available control technology when energy, environmental and economic impacts are considered.

ADEM concurs with Legacy's determination that the emission limits listed in the application are BACT. A complete BACT review is available in the application.

### **Soils and Vegetation**

The PSD regulations require an analysis of the impact of the emissions from a major source on soils and vegetation having a significant commercial or recreational value. Since the predicted ambient impacts of the source are projected to be in the immediate area of the source and are relatively minor, no discernible impact on soils or vegetation is expected.

### **Visibility**

The PSD regulations require that an analysis of the potential impairment to visibility in Class I areas be completed. Since the plant would be located more than 100 Km from the nearest Class I area (Sipsey Wilderness in northwest Alabama), it is unlikely that the proposed project would adversely affect visibility in this area.

### **Modeling**

The PSD regulations require modeling of certain criteria pollutants in a PSD permitting action be completed. An ambient air impact analysis will not be required because there is no EPA-approved methodology for evaluating the 8-hour ozone standard for an individual source. An air toxics analysis was not conducted because this is an existing operation and there is a MACT regulation covering this facility. The facility is located within an attainment area for all criteria pollutants.

## **SUMMARY**

The PSD application for Air Permits to construct and operate a wooden cabinet plant near Eastaboga, Alabama would meet the following criteria:

1. BACT has been determined for each emission source for all applicable pollutants. The emission limits and/or work practices have been incorporated in the proposed permit provisos (see [Attachment](#)).
2. Ambient pollutant concentrations from the proposed plant would not exceed either the National Ambient Air Quality Standards (NAAQS) or the PSD increments.
3. The impact on soils, vegetation, and visibility are expected to be insignificant.



# AIR PERMIT

**PERMITTEE:** LEGACY CABINETS, INC.

**FACILITY NAME:**

**LOCATION:** EASTABOGA, AL

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
309-0030-X006	LINE NO. 6

*In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol and 2007 Cum. Supp..) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol and 2007 Cum. Supp..), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.*

**ISSUANCE DATE:** xxxxx, 2017

**Legacy Cabinets, Inc.**  
**Eastaboga, AL**  
**(PERMIT NO. 309-0030-X006)**  
**PROVISOS**

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**1. General Permit Provisos**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. Each point of emission will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
5. In case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than **1 hour**, the intent to shut down shall be reported to the Air Division at least 24 hours prior to the planned shutdown, **unless accompanied by the immediate shutdown of the emission source.**
6. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
8. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
9. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.

10. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
11. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.
12. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

13. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
14. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
15. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

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16. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
17. The permittee shall submit an annual compliance certification to the Department no later than 60 days following the anniversary of the issuance of this permit or with the Annual Major Source Operating Permit certification. The compliance certification shall include the following:
  1. The identification of each term or condition of this permit that is the basis of the certification.
  2. The compliance status, whether continuous or intermittent.
  3. The method(s) used for determining the compliance status of the source, currently and over the reporting period.
  4. Other facts the Department may require to determine the compliance status of the source.

The compliance certification shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.



**LINE NO. 6**  
**Provisos**

	<b>Regulations</b>
<b>1. Applicability</b>	
1. This source is subject to the applicable requirements of ADEM Admin. Code R 335-3-16-.03, "Major Source Operating Permits".	ADEM Admin. Code R. 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-11-.06(35), "National Emission Standards for Wood Furniture Manufacturing Operations" as a "New Source". This source is also subject to the General Provisos as listed in Table 1 of Subpart JJ in 40 CFR Part 63.	ADEM Admin. Code R. 335-3-11-.06(35)
3. This source is subject to PSD BACT emission limitations.	ADEM Admin. Code R. 335-3-14-.04
<b>2. Emission Standards</b>	
1. This source is subject to the applicable emissions standards of 40 CFR Part 63 Subpart JJ §63.802 "National Emission Standards for Wood Furniture Manufacturing Operations" to include §63.802 (a)(1) through (a)(3).  This facility shall not emit greater than 0.70 pound of VHAPs per pound of solids as delivered to the applicator for all coatings as determined by a monthly average among other requirements.  This unit (Line No. 6) shall not emit greater than 0.30 pound of VHAPs per pound of solids as delivered to the applicator for all coatings as determined by a monthly average among other requirements.  If contact adhesives are utilized at this source, the VHAP content of the adhesive shall not exceed 0.20 pounds of VHAP per pound of solids as applied at the applicator.  If strippable spray booth coatings are utilized at this source, the VHAP content of the adhesive shall not exceed 0.80 pounds of VHAP per pound of solids as applied at the applicator.	ADEM Admin. Code R. 335-3-11-.06(35)
2. Emission of Volatile Organic Compounds (VOCs) from all surface coating operations for this Unit No. X006 including, but not limited to coating, storage, cleanup, etc., shall not exceed 110.0 tons per year (TPY) in any consecutive rolling 12-month period based on the premise that all VOCs applied are emitted.	ADEM Admin. Code R. 335-3-14-.04(8)

		Regulations								
3.	This facility is subject to the applicable work practice standards of 40 CFR Part 63 Subpart JJ §63.803 “National Emission Standards for Wood Furniture Manufacturing Operations” to include §63.803 (a) through (l).	ADEM Admin. Code R. 335-3-11-.06(35)								
4.	This Unit No. X006 is subject to a PSD BACT limitation of utilizing only HVLP or Air Assisted Airless spray technology in applying coatings utilized on this line.	ADEM Admin. Code R. 335-3-14-.04(8)								
5.	This Unit No. X006 is subject to a PSD BACT limitation of operating a maximum of 5000 hours per 12 month rolling period on this line.	ADEM Admin. Code R. 335-3-14-.04(8)								
6.	<p>This Unit No. X006 is subject to a PSD BACT limitation on coatings utilized on this line. The following are the maximum VOC content for coatings utilized on Line No. 6.</p> <table><tr><td>Stains</td><td>1.58 pounds VOC/ gallon coating</td></tr><tr><td>Sealers</td><td>0.62 pounds VOC/ gallon coating</td></tr><tr><td>Topcoats</td><td>2.30 pounds VOC/ gallon coating</td></tr><tr><td>Catalysts</td><td>1.55 pounds VOC/ gallon coating</td></tr></table>	Stains	1.58 pounds VOC/ gallon coating	Sealers	0.62 pounds VOC/ gallon coating	Topcoats	2.30 pounds VOC/ gallon coating	Catalysts	1.55 pounds VOC/ gallon coating	ADEM Admin. Code R. 335-3-14-.04(8)
Stains	1.58 pounds VOC/ gallon coating									
Sealers	0.62 pounds VOC/ gallon coating									
Topcoats	2.30 pounds VOC/ gallon coating									
Catalysts	1.55 pounds VOC/ gallon coating									
7.	This Unit No. X006 will perform at least daily checks on each booth’s PM filters and manometer system.	ADEM Admin. Code R. 335-3-14-.04(8)								
8.	This Unit No. X006 shall utilize good work practices that are practically and economically feasible that reasonably minimize clean-up/purge/general solvent usage in all operations. Coatings, solvents, and other VOC containing material will be handled in such a way as to minimize VOC emissions from storage, handling, coating, and cleanup. Closed containers shall be used for the storage and disposal of cloth or other material used for VOC containing material cleanup or usage. Coatings and other fresh or spent VOC coating material will be stored in closed containers. Flushing paint system practices shall include recovering and recycling spent solvents, and minimizing paint and solvent supply hose length.	ADEM Admin. Code R. 335-3-14-.04(8)								

	Regulations
<p><b>3. Compliance and Performance Test Methods and Procedures</b></p> <ol style="list-style-type: none"> <li>1. The VOC content by weight of each VOC containing material used shall be determined using EPA Test Method 24, as defined in 40 CFR 60, Appendix A. Vendor data based on this method is an appropriate substitute.</li> <li>2. The HAPs content by weight of each HAPs containing material used shall be determined using EPA Test Method 311, as defined in 40 CFR 63, Appendix A. Vendor data based on this method is an appropriate substitute.</li> <li>3. This source is subject to the applicable testing methods of 40 CFR Part 63 Subpart JJ §63.805, “National Emission Standards for Wood Furniture Manufacturing Operations” to include §63.805 (a).</li> <li>4. This source is subject to the applicable compliance procedures of 40 CFR Part 63 Subpart JJ §63.804, “National Emission Standards for Wood Furniture Manufacturing Operations” to include §63.804 (a) through (c), (f), and (g).</li> <li>5. The facility shall use the following equations to calculate as applicable.</li> </ol> <p>To calculate the average VHAP content for finishing operations, the facility shall use the equation presented in 40 CFR 63.804(a)(1).</p> <p>To calculate VHAP emissions from a finishing material containing styrene or formaldehyde, the facility shall use the methods presented in 40 CFR 63.803(l)(2).</p> <p><b>4. Emission Monitoring</b></p> <ol style="list-style-type: none"> <li>1. When operating, daily checks on each booth’s PM filters and manometer system for Unit No. X006 shall be performed for proper operation. If the PM filters show excess PM coverage, gaps, or other maintenance problems, the PM filters will be corrected as soon as practicable, but no longer than the next stoppage of the line.</li> <li>2. When operating, daily checks on each booth’s PM filters and manometer system for Unit No. X006 shall be performed for proper operation. If the manometers show excess pressure above previously established values or other maintenance problems, the PM filters will be corrected as soon as practicable, but no longer than the next stoppage of the line. The manometers settings will be checked each time the filters are changed on a booth for proper operation and reset as necessary.</li> </ol>	<p>ADEM Admin. Code R. 335-3-1-.04</p> <p>ADEM Admin. Code R. 335-3-1-.04</p> <p>ADEM Admin. Code R. 335-3-11-.06(35)</p> <p>ADEM Admin. Code R. 335-3-11-.06(35)</p> <p>ADEM Admin. Code R. 335-3-11-.06(35)</p> <p>ADEM Admin. Code R. 335-3-14-.04(8)</p> <p>ADEM Admin. Code R. 335-3-14-.04(8)</p>

**Regulations**

3. When operating, daily checks on each booth's coating/flushing system and the mix/paint room supplying the booths for Unit No. X006 shall be performed for proper operation as required in Proviso 2.8. If there are issues with noncompliance with this proviso, it shall be noted in the log and the appropriate paint personnel and their supervisors shall be notified and the situation corrected.

ADEM Admin. Code R.  
335-3-14-.04(8)

**5. Recordkeeping and Reporting Requirements**

1. Accurate and understandable records of consumption, which record at least the last five years of data, will be maintained in a permanent form suitable for inspection and be available immediately upon request. This facility shall provide a copy of records and supporting background documents upon request that pertain to this air permit. These records shall contain the following information:
  - (a) The type, quantity in gallons, and weight in pounds of each VOC or HAP containing material used during each calendar month.
  - (b) The percent by weight of VOCs, water, solids, VHAPs, and exempt VOC compounds content of each VOC containing material used each calendar month.
  - (c) The percent by volume of VOCs, water, solids, VHAPs, and exempt VOC compounds content of each VOC containing material used each calendar month.
  - (d) Compliance with VOC and VHAP limits shall be based upon monthly material use inventories. Emissions may be adjusted for VOC and VHAP content of material removed from the plant as waste or returns if the record keeping and details surrounding the materials are approved in advance.
  - (e) Complete inventories of the VOC and HAP containing materials (their usage, VOC content and VHAP content) shall be made at the end of each calendar month.
  - (f) The amount of VOCs emitted per calendar month from the coating and cleaning operations in units of pounds and tons.
  - (g) The rolling 12-month total of VOCs emitted from the coating and cleaning operations in units of pounds and tons.
  - (h) Within the first 10 days of each month, compliance with all provisos in this permit will be determined. These records will be maintained for 5 years. Should this facility, at any time, exceed the limits in this permit, the Air Division must be notified in writing

ADEM Admin. Code R.  
335-3-1-.04

	Regulations
within ten (10) days of the identification of the exceedance.	
(i) By the 15 <sup>th</sup> of the month following the end of each calendar quarter, a written report for the previous three months shall be submitted to the Air Division. The report shall provide the above information, as applicable.	
2. A log book of the records of Unit No. X006 daily checks on each booth's PM filters and manometer system required in proviso 4.1 and 4.2 shall be retained for at least five years and available for inspection upon request.	ADEM Admin. Code R. 335-3-14-.04(8)
3. A log book of the records of Unit No. X006 daily checks on each booth's coating/flushing system and the mix/paint room supplying the booths required in proviso 4.3 shall be retained for at least five years and available for inspection upon request.	ADEM Admin. Code R. 335-3-14-.04(8)
4. Records of compliance with Unit No. X006 showing compliance with the PSD BACT limitations on coatings utilized on this line required in Proviso 2.6 shall be maintained in a permanent form suitable for inspection and be available immediately upon request. A monthly summary of the maximum values for each class of coating shall be calculated monthly and submitted at least quarterly by the 15 <sup>th</sup> of the month following each quarter.	ADEM Admin. Code R. 335-3-14-.04(8)
5. A log book of the records of Unit No. X006 hours of operation will be kept every day that this line is in operation and shall be retained for at least five years and available for inspection upon request. A monthly total of the daily calculations shall be calculated monthly and submitted at least quarterly by the 15 <sup>th</sup> of the month following each quarter.	ADEM Admin. Code R. 335-3-14-.04(8)
6. This source is subject to the applicable recordkeeping requirements of 40 CFR Part 63 Subpart JJ §63.806, "National Emission Standards for Wood Furniture Manufacturing Operations" to include §63.806 (a) through (e), and (h) through (j).	ADEM Admin. Code R. 335-3-11-.06(35)
7. This source is subject to the applicable reporting requirements of 40 CFR Part 63 Subpart JJ §63.807, "National Emission Standards for Wood Furniture Manufacturing Operations" to include §63.807 (a) through (c), and (e).	ADEM Admin. Code R. 335-3-11-.06(35)
8. A report summarizing the information in proviso 5.1, 5.2, 5.3, 5.4, 5.5, and 5.6 shall be submitted each calendar quarter by the 15th day of the month following the end of the quarter, in a format approved by the Department in advance.	ADEM Admin. Code R. 335-3-1-.04

CHECKLIST FOR ISSUANCE OF AIR PERMIT

Type: PSD ☒ SMS ☐ NAME ☐ MOD ☒ TEMP ☐ OTHER \_\_\_\_\_  
Source: NSPS ☐ NESHAP ☒ SIP ☒ OTHER: